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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,691	05/24/2004	Itzhak Bentwich	050992.0400.01USCP	3690
37808 7590 07/23/2009 ROSETTA-GENOMICS c/o PSWS 700 W. 47TH STREET SUITE 1000 KANSAS CITY, MO 64112				
EXAMINER WOLLENBERGER, LOUIS V				
ART UNIT		PAPER NUMBER		
1635				
MAIL DATE		DELIVERY MODE		
07/23/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/709,691

Applicant(s)

BENTWICH ET AL.

Examiner

Louis Wollenberger

Art Unit

1635

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23, 25, 31, 33, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 23, 31, 33, and 39 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Application/Amendment/Claims

Applicant's response filed 5/12/2009 have been considered. Rejections and/or objections not reiterated from the previous office action mailed 2/12/2009 are hereby withdrawn. The following rejections and/or objections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's amendments to the claims filed 5/12/2009 are acknowledged. With entry of the amendment, Claims 23, 25, 31, 33, 39, and 40 are pending and under consideration.

Specification

The application contains disclosure entirely outside the bounds of the allowed claims. Applicant is required to modify the brief summary of the invention and restrict the descriptive matter so as to be in harmony with the claims (MPEP § 1302.01).

In the instant case the specification incorporates by reference several large tables, Tables 1-11, submitted to the Office in the form of compact discs, which, altogether, are said by applicant to contain several thousand kilobytes of information, the large majority of which is not pertinent to the claimed invention: SEQ ID NO:348 and 4233864.

Using the conversion factor set forth in 37 CFR 1.52(f)(1), the electronic information contained in Tables 1-11 represents tens if not hundreds of thousands of sheets of additional disclosure beyond the approximately 162 pages of paper copy specification filed therewith. A review of Tables 1-11 finds the tables disclose information directed to hundreds of thousands of different nucleotide sequences that have no disclosed relation to the claimed sequences.

In addition to the requirement under MPEP 1302.01, Applicant is required under 37 CFR 1.52(e)(5) to amend the specification to include in the paper portion of the specification all descriptive matter pertinent to SEQ ID NO:348 and 4233864 that was previously submitted in tables on compact disc. Amendments to the specification must comply with 37 CFR 1.121 and 1.125.

Claim Objections

Claims 33 and 40 are objected to because of apparent typographical errors: "heterolgous" and "heterlogous."

Claim Rejections - 35 USC § 101 and 112, First Paragraph—withdrawn

The rejection of Claims 23, 25, 31, and 33 under 35 U.S.C. 101 and 35 USC 112, first paragraph, because the claimed invention is not supported by a credible asserted utility or a well established utility is withdrawn in view of the totality of evidence of record.

Claim Rejections - 35 USC § 102—maintained

Claim 31 remains rejected and new claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by Dunn et al. GenBank Accession No. AZ593982, published online at NCBI on December 13, 2000 is withdrawn in view of the amendment to the claim.

As shown by the alignment below, Dunn et al. taught a vector comprising a sequence encoding and complementary to SEQ ID NO:348. Accordingly, the prior art disclosed the instantly claimed vector. The vector disclosed by Dunn et al. is indistinguishable from the probe (i.e., nucleic acid) defined by claim 39 and would be capable of being used as a probe.

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>U01425922R2.1: 1M9405M14R Mouse 10kb plasmid UUGC1M library Mus musculus genomic  
clone UUGC1MD405M14 R, genomic survey sequence.  
Length=761
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Score = 152 bits (82), Expect = 1e-34  
Identities = 88/91 (96%), Gaps = 0/91 (0%)  
Strand=Plus/Plus
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Query 1 CCTGCTCCCGCCCGCCAGCAGCACACTGTGGTTGTACGGCACTGTGGCCACGTCCAAACA 60  
||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Sbjct 29 CCTGCCCGCCCGCCCGCCAGCAGCACACTGTGGTTGTACGGCACTGTGGCCACGTCCAAACA 88  
  
Query 61 CACTGTGTGTTAGAGCGAGGGTGGGGAGG 91  
||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||  
Sbjct 69 CACTGTGTGTTAGAGCGAGGGTATGGGAGG 119
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Claims 31 and 33 remain rejected and new claim 40 is rejected under 35 U.S.C. 102(b) as being anticipated by Birren et al., GenBank Acc. No. AC015918 “Homo sapiens chromosome 17 clone CTD-3165O8 map 17”, published online by NCBI on March 27, 2003. (The reference contains a lengthy sequence disclosure. Applicant is provided with the first 3 pages disclosing features relevant to the rejection and a portion of the sequence

As shown by the alignment below, Birren et al. disclosed a human BAC clone (i.e., vector) comprising a sequence encoding and complementary to instant SEQ ID NO:348 and 4233864. The vector disclosed by Birren et al. is indistinguishable from the probe (i.e., nucleic acid) defined by claim 40 and would be capable of being used as a probe. Accordingly, Birren et al. anticipates the instant claims.

Claim Rejections - 35 USC § 103—withdrawn

The rejection of Claims 23 and 25 under 35 U.S.C. 103(a) as being unpatentable over Birren et al., GenBank Acc. No. AC015918 “Homo sapiens chromosome 17 clone CTD-316508 map 17”, published online by NCBI on March 27, 2003, as applied to claims 31 and 33 above in view of:

1. Venter et al. (US Patent 6,812,339)
2. Buck et al. (Biotechniques (1999) 27(3): 526-538);
3. Hogan (US Pat. 5,541,308, July 30, 1996); and
4. Brown (1998) “In situ hybridization with riboprobes: An overview for veterinary pathologists” *Vet. Pathol.* 35:159-167

is withdrawn in view of Applicant’s arguments, which are found persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou (US Patent 7,250,289).

Zhou disclosed and claims arrays comprising a plurality of 25-nucleotide nucleic acid probes. Methods for synthesizing (i.e., isolating) and using each probe in the array are disclosed. One probe, SEQ ID NO:669995, is at least 80% identical/complementary to instant SEQ ID NO:348 and its complements, as defined by claim 23, parts c and d (see alignment below). Zhou taught that nucleic acids of their invention may range from at least 2 to preferably at least 8, 15 or 20 nucleotides in length (col. 6 and elsewhere). At column 8, it is taught the nucleic acids spotted onto the array can be essentially of any length from 1 to 1000 monomers. Accordingly, one of skill would reasonably have envisioned nucleic acid probes of at least 8 to 25 nucleotides in length corresponding to any of the disclosed nucleic acid probes, including SEQ ID NO: 669995. One of skill would reasonably have been led to make and use any of these probes because Zhou states that any probe of any length, including those lengths specifically suggested, may be used on the array. One would reasonably expect the 24-mer or 23 mer equivalents of SEQ ID NO: 669995, or any other probed disclosed therein, to have substantially the same hybridization properties as SEQ ID NO: 669995, and would reasonably be motivated to make and use shorter nucleic acids for economy. 24-mer or even 23 mer equivalents of SEQ ID NO: 669995 necessarily include sequences at least 80% identical/complementary to instant SEQ ID NO:348, DNA encoding SEQ ID NO:348, and complements thereof. Accordingly, the instantly claimed sequences would have been *prima facie* obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Wollenberger whose telephone number is (571)272-8144. The examiner can normally be reached on M-F, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James (Doug) Schultz can be reached on (571)272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Louis Wollenberger/
Primary Examiner, Art Unit 1635
July 17, 2009